

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0034] with the following amended paragraph:

[0034] FIGS. 5A – 5D schematically show a cross-sectional view of a chamber component according to an embodiment of the invention. FIG. 5A shows a clean chamber component 500. FIG. 5B shows a particle-reducing film 502 formed on the clean chamber component 500. The optimum type of particle-reducing film and the particle-reducing film thickness can be selected through experimentation so as to effectively reduce film stress in a new material deposit formed on the particle-reducing film during subsequent substrate processing, to maintain a stable deposition rate of the new material deposit on chamber components, and to decrease particle levels within the process chamber during subsequent substrate processing. While not intending to be bound by theory, it is believed that the new deposit will adhere more strongly to the particle-reducing film than to the clean component surface and that the interaction between the film and new deposit relieves stress in the new deposit such that thicker deposits can be formed before cracking and flaking occurs. The particle-reducing film selection can further include evaluating the cost of implementing and forming the particle-reducing film on a chamber component within the process chamber and also the impact on the tool cost of ownership. In one embodiment of the invention, the particle-reducing film ~~500~~502 for a BTBAS-based silicon nitride manufacturing process can be an oxide film, e.g., silicon dioxide (SiO₂), with a thickness between about 1,000 angstroms (Å), or less, and about 3,000 Å, where the film thickness can be determined by experimentation.

Please replace paragraph [0038] with the following amended paragraph:

[0038] FIGS. 6A – 6C schematically show a cross-sectional view of a chamber component according to an embodiment of the invention. FIG. 6A shows a new material deposit 604 that is formed on a particle-reducing film 602 formed on chamber component 600. FIG. 6B shows a second particle-reducing film 608 that is formed on the material deposit 604 to relieve film stress

and seal cracks 606a – 606c in the material deposit 604. Alternately, the second particle-reducing film 608 may be formed before the material deposit 604 reaches a critical thickness and cracks 606a – 606c are formed. Following formation of the second particle-reducing film 608, substrate processing may be continued in the process chamber without performing a chamber cleaning process. FIG. 6C shows a second new material deposit 610 formed on the second particle-reducing layer 608 after further substrate processing. The second particle-reducing film 608 reduces particle formation from the underlying material deposit 604 and from the second new material deposit 610. A particle-reducing film may be formed on a chamber component after each manufacturing process or, alternately, at selected intervals after multiple manufacturing processes.